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14th ANNUAL ANZSIL CONFERENCE:
PACIFIC PERSPECTIVES ON INTERNATIONAL LAW

THIS ISSUE INCLUDES CONTRIBUTIONS BY:

Campbell McLachlan

Rt Hon Helen Clark

José E Alvarez

Transform Aqorau

Andrew T F Lang

Shirley V Scott

Andrew Townend

Stephen Tully

Steven Freeland

VICTORIA UNIVERSITY OF WELLINGTON

Te Whare Wānanga o te Ūpoko o te Ika a Māui



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Address for all other communications:

The Student Editor
New Zealand Journal of Public and International Law
Faculty of Law
Victoria University of Wellington
PO Box 600
Wellington
New Zealand
e-mail nzjpil-editor@vuw.ac.nz
fax +64 4 463 6365

CHALLENGES AND PROSPECTS FOR EFFECTIVE TUNA MANAGEMENT IN THE WESTERN AND CENTRAL PACIFIC

*Dr Transform Aqorau**

The most important renewable natural resource in the Western and Central Pacific Ocean (WCPO) is tuna. Many of the small island developing states in the region depend on the exploitation of tuna resources for their economic development. This article discusses the challenges and prospects for effective tuna management in the WCPO. It discusses recent efforts made in the region to conserve tuna stocks, and also identifies the problems relating to the measures that have been adopted to date. The article also discusses the challenges to effective management. These include weak institutions and governance practices. The conclusion is drawn that there is a genuine desire, on the part of the states and territories involved, to cooperate to ensure that tuna stocks do not become overexploited.

I INTRODUCTION

This article discusses the challenges and prospects for effective tuna management in the Western and Central Pacific Ocean (WCPO). The importance of the tuna resources in the WCPO to the global tuna market cannot be underestimated. According to Gillet:¹

... [T]he Pacific Islands region is now the most important tuna fishing area in the world. It supplies about a third of all tuna in the world and its tuna fisheries dwarf those of the other three major tuna fishing areas both in volume and value.

To appreciate the challenges, this article begins by discussing the state of tuna fisheries in the WCPO in the context of the global tuna market and the problems associated with its management. This is followed by a discussion of measures that have been adopted to address concerns about the stocks. Gaps in the current measures are examined and proposals are suggested to address those

* Deputy Director-General, Pacific Islands Forum Fisheries Agency, Honiara, Solomon Islands; Senior Visiting Fellow, Australia Centre for Ocean Resources and Security (ANCORS), University of Wollongong.

1 Robert Gillet and others "Tuna: A Key Economic Resource in the Pacific Islands" (Asian Development Bank, Manila, 2001) ix.

gaps. The article concludes that while there are challenges facing tuna management in the WCPO, the prospects are good given the serious threat facing global stocks and the high level of goodwill existing amongst the states involved in the WCPO tuna fisheries to prevent the overexploitation.

II THE TUNA FISHERIES IN THE WCPO

The small island developing states and territories in the region are only one class of actors in the tuna fisheries.² In the WCPO, the other actors in the tuna fisheries are the fishing states,³ coastal states,⁴ fish exporting states,⁵ fish consuming states,⁶ developing coastal states,⁷ industry groups⁸ and environmental organisations.⁹ The challenge facing the region is to ensure the interests of the different actors are harnessed, managed and optimised so that the best decisions can be made. It is not necessarily an easy task. Each actor has a role to play in ensuring that the resources are not overexploited. The difficulty confronting each actor is that often they do not necessarily share the same platform in terms of where their interests lie and this may inevitably lead to disagreements with each other. However, the challenge is to ensure that their differences do not undermine their broad interest in ensuring the tuna stocks remain healthy.

According to the Food and Agriculture Organization of the United Nations (FAO), total world fish production increased steadily from 19.3 million tonnes in 1950, to more than 100 million tonnes in 1989, and 134 million tonnes in 2002.¹⁰ The largest contributor to world fish production during

-
- 2 The small island developing states referred to in this article are the Pacific Island Members of the Forum Fisheries Agency. These are the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu.
 - 3 The fishing states may be classified as all the distant water fishing states. These are: China, the European Union, Japan, Korea, Taiwan and the United States.
 - 4 These may be classified as all the small island developing states and territories including Indonesia, the Philippines and Japan.
 - 5 In the context of this article these may include Fiji, Papua New Guinea, Samoa, Solomon Islands and Tonga.
 - 6 These may be classified as China, the European Union, Japan and the United States.
 - 7 These may be categorised as all the small island states and territories, Indonesia, and the Philippines.
 - 8 Industry groups in the Western and Central Pacific Ocean which play an active role are the National Association of Fishing Industries of the Pacific Islands, the World Tuna Boat Owners Association, and the Organisation for the Promotion of Responsible Fishing.
 - 9 The environmental non-governmental organisations that play a role in the region's tuna fisheries are: Greenpeace International, Worldwide Fund for Nature, Marine Stewardship Council, and the International Gaming Association.
 - 10 FAO "Review of the State of World Marine Fishery Resources" (FAO Fisheries Technical Paper No 457, Rome, 2005) 2.

that period has come from the marine capture fisheries. In the 1950s, marine captures were 16.7 million tonnes, representing 86 per cent of the total world fish production, and by 1980 marine captures increased to 62 million tonnes, also representing 86 per cent of the total.¹¹ This has largely been a result of improved technology.

Over the last two decades however, there has been a faster expansion of marine and inland water aquaculture, and the relative contribution of marine capture fisheries to the total world fish production has diminished.¹² Nevertheless, total catches continued to increase, but at a slower rate than aquaculture. Of the total world fish production of 134.3 million tonnes in 2002, almost 63 per cent (84.4 million tonnes) were produced through the exploitation of wild fish resources of the oceans.¹³ Marine and inland water aquaculture represent around 30 percent and inland water capture fisheries represent the remaining 7 per cent.

According to the FAO:¹⁴

... [O]f the 441 stock or species groups where assessment information is available and which have their general state of exploitation described or summarised in the regional reviews ... about 3 percent are underexploited and 20 percent are moderately exploited. Stocks in these categories are the ones providing some potential for further fisheries expansion. An estimated 52 percent of the world stocks are fully exploited, and are therefore producing catches that are already at or very close to their maximum sustainable production limit, with no room for further expansion, and even some risk of decline if not properly managed. From the remaining, approximately 17 percent are over-exploited, 7 percent depleted and 1 percent recovering, and thus offer no room for further expansion (which, if any, would be conditioned to the extent of their long-term rebuilding or recovery) and even risk being part of further fishery declines if fisheries management and adequate stock recovery strategies are not put into place.

11 Ibid.

12 Ibid.

13 Ibid.

14 Ibid, 6.

With respect to highly migratory fish stocks, the Secretary-General of the United Nations reported that:¹⁵

... [S]cientific information available from [regional fisheries management organisations] and intergovernmental organisations indicate that most stocks of tuna are fully exploited. Some are overfished and few are depleted. There are probably few opportunities to increase exploitation, except in some areas in the Pacific, and possibly in the Indian Ocean, where significant increases in catches of skipjack tuna might be sustainable.

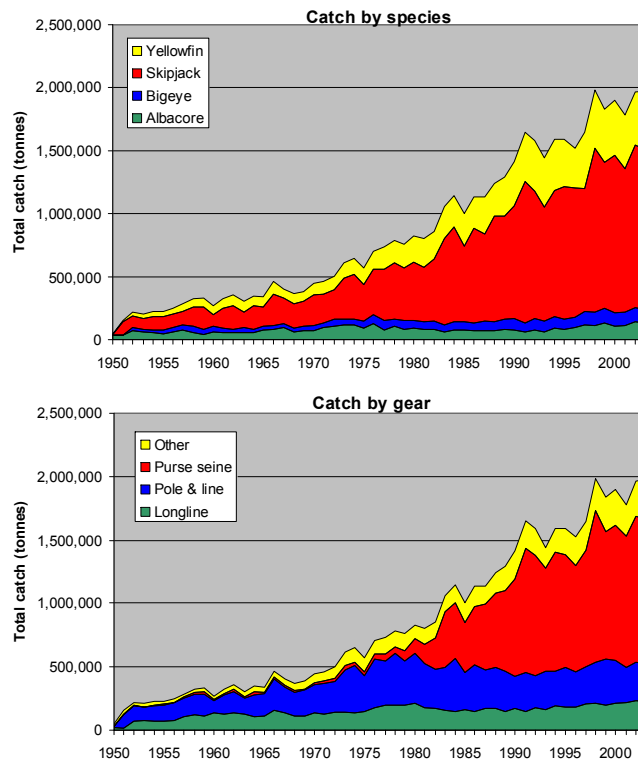


Figure 1: Catches of tuna by species and gear.

Source: SPC 2005

15 UNGA "Report submitted in accordance with paragraph 17 of General Assembly resolution 59/25 of 17 November 2004 to assist the Review Conference to implement its mandate under paragraph 2, article 36 of the United Nations Fish Stocks Agreement" (4 January 2006) A/CONF.210/2006/1, para 42.

In the WCPO, there has been an expansion in the tuna fishery since the late 1980s, due largely to the expansion of the purse seine fishery.¹⁶

Figure 1 gives an indication of catch by species and gear. As illustrated in Figure 1, the dominant fishery is the skipjack (*katsuwonus pelamis*) tuna fishery, which is primarily targeted by purse seine vessels. The tuna fishery in the WCPO is now recording catches of major target species of almost two million tonnes annually.¹⁷ Catches are dominated by skipjack tuna (~1.2 million tonnes) and yellowfin tuna (400,000–500,000 tonnes), with smaller catches of bigeye tuna (~100,000 tonnes) and albacore tuna (55,000 tonnes in the South Pacific). The purse seine fishery dominates the catch, with longline and pole-and-line gears also of importance. The domestic fisheries in the Philippines and Indonesia catch large quantities of mainly juvenile tuna using a range of fishing methods.

According to the Oceanic Fisheries Programme (OFP) of the Secretariat of the Pacific Community (SPC), skipjack tuna remain in good health and there is potential for increased catches.¹⁸ This was recognised in the Western and Central Pacific Fisheries Commission (WCPFC) decisions by allowing for development of fisheries targeting skipjack if they are demonstrably having minimal impact on bigeye and yellowfin tuna stocks.¹⁹ The assessments of yellowfin and bigeye tuna indicate that overfishing is occurring on both stocks, and the Scientific Committee of the WCPFC advised that fishing mortality should be reduced. However, the measures decided by the Commission could allow fishing mortality to increase. There is an inconsistency at this point between the stock assessment and management advice on the one hand, and the WCPFC management response on the other.²⁰

The assessment and scientific advice for South Pacific albacore tuna indicates that overfishing is not occurring, but notes that further increases in longline effort could result in decreased fishery performance and profitability. The WCPFC decision to limit fishing capacity in the southern area (south of 20°S) will consolidate the focus of the fishery on older age-classes and limit the impact of

16 A purse seine is a net which is set in a circle around a school of pelagic fish such as tuna, mackerel and pilchards. Once a school is located, the end of the net is attached to a buoy or skiff. The vessel releases more and more of the net as it moves around in a large circle, which is completed when the two ends of the net are brought together. When the net has been hauled alongside the vessel, a large dip net or brail is used to transfer smaller portions of the catch into the hold. For further reading see Michael King *Fisheries Biology, Assessment and Management* (Fishing News International, Oxford, 1995).

17 Forum Fisheries Agency "SPC Stock Assessment Report" (Paper prepared for the 61st Ministerial Meeting of the Forum Fisheries Committee, FFC61/WP1M, Nadi, 19 May 2006).

18 SPC "Status of Stocks Report" (Paper prepared for the 61st Ministerial Meeting of the Forum Fisheries Committee, FFC61/INFO, Nadi, 19 May 2006).

19 WCPFC "Yellowfin and Bigeye Tuna Conservation and Management Measure, 2005-01" (Pohnpei, 2005).

20 Ibid.

the fishery on the overall stock. The SPC notes that it will also limit the potential to increase yields through catches of younger age-classes of albacore.²¹ Any substantial increase in catches north of 20°S by the small island developing states is likely to reduce albacore catch rates and therefore the profitability of the fleet.

In August 2005, serious concerns were raised at the first regular session of the Scientific Committee of the WCPFC Commission about the status of bigeye and yellowfin tuna. According to the report of the Scientific Committee, with respect to bigeye tuna:²²

The 2005 stock assessment is generally consistent with the result of the 2004 assessment, although the point estimates of the reference points are slightly more pessimistic. In particular, while the 2004 assessment indicated that overfishing was possibly occurring ($F_{\text{current}}/F_{\text{MSY}} \sim 1$)²³ the 2005 assessment indicates that overfishing is likely occurring ($F_{\text{current}}/F_{\text{MSY}} \sim 1$) for the base case and three of five sensitivity analyses. Both assessments indicate that the stock is not presently in an overfished state ($B_{\text{current}}/B_{\text{MSY}} > 1$)²⁴ because of high levels of estimated recruitment since 1990. The assessment indicates that the equatorial regions are the most highly impacted, while fishery impacts in the peripheral temperate regions are not large.

The Scientific Committee expressed similar concerns about yellowfin tuna:²⁵

The 2005 stock assessment is more pessimistic than the 2004 assessment as a result of methodological improvements in the interpretation of catch rate data and the relative abundance of yellowfin tuna across regions. Overfishing is probably occurring in the yellowfin stock in the WCPO ($F_{\text{current}}/F_{\text{MSY}} \sim 1$ in the point estimates from the base case and all sensitivity analyses), but the stock is probably not in an overfished state ($B_{\text{current}}/B_{\text{MSY}} > 1$, except in sensitive analyses involving increases in fishing efficiency). The assessment indicates that the equatorial regions are the most highly impacted, while fishery impacts in the peripheral temperate regions are not large.

21 Ibid.

22 See WCPFC "Draft Report of the First Regular Session of the Scientific Committee of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific" (Secretariat for the Pacific Community, Noumea, 22 August 2005).

23 "F" means fishing effort, thus " F_{current} " means current fishing effort. "MSY" means maximum sustainable yield (in weight). MSY is the maximum weight or yield which may be taken from a stock without adversely affecting future reproduction and recruitment. See Michael King, above n 16, 198.

24 "B" means biomass (weight of fish in a stock). See Michael King, above n 16, 194.

25 WCPFC "Report of the First Regular Session of the Scientific Committee of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific" (Pohnpei, 2005) 48.

The Scientific Committee has recommended to the WCPFC to reduce the fishing mortality for both bigeye and yellowfin tuna from current efforts (F_{current}).²⁶ Some serious action will be required of the WCPFC to address the growing concerns with these two species of tuna. At an informal meeting of members of the WCPFC, participants "expressed the urgent need for the Commission to discuss and adopt conservation and management measures, in particular for bigeye and yellowfin".²⁷ The health of the WCPO's tuna stocks is of global importance. There is therefore some urgency to address the concerns expressed by the region's scientists.

These problems reflect the generally held view that international fisheries management has not been as successful as anticipated. The United States (US) delegation to the recent United Nations Fish Stocks Agreement (UNFSA) Review Conference stated that "the adoption and implementation of measures for the long-term sustainability of straddling fish stocks and highly migratory fish stocks and addressing fisheries not regulated by a Regional Fisheries Management Organisation (RFMO) are proceeding unevenly".²⁸

In the WCPO region, some concerted efforts have been made to address concerns pertaining to fish stocks, particularly yellowfin and bigeye tuna. One of the issues that has continued to plague RFMOs is whether conservation and management measures go far enough in ensuring the stocks are not exposed to overexploitation. In other words, whether the fisheries management responses should reflect the advice of scientists. At the UNFSA Review Conference, the US delegation proposed that conservation and management measures should reflect the advice of scientists.²⁹ This raises issues with respect to the role that science plays in the management of fisheries resources. The United Nations Convention on the Law of the Sea only requires that the states take "into account the best scientific evidence available to it"³⁰ and "ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation."³¹ Because of the fairly loose legal linkage between science and

26 See WCPFC "Summary Report of the Scientific Committee" (Presented at the informal meeting on the 2nd Meeting of the WCPFC, Tokyo, 8 September 2005). The Committee suggested that effort reductions across all fisheries, in which bigeye and yellowfin tuna are caught to about 80 per cent of 2001–2003 average levels, are predicted to reduce fishing mortality to F_{MSY} levels.

27 Record of Proceedings of the Informal Consultations on the Second Meeting of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific (Tokyo, 8–9 September 2005).

28 UN Fish Stocks Review Conference "Statement by the United States of America: Conservation and Management of Stocks" (UN Fish Stocks Agreement Review Conference, New York, 22–26 May 2006).

29 Ibid.

30 United Nations Convention on the Law of the Sea (UNCLOS) (10 December 1982) 1833 UNTS 3, art 61(3).

31 Ibid, art 61(2).

fisheries management, it has led to what the US delegation at the UNFSA Review Conference described as the "political trumping of management decisions called for by scientific advice which inhibits communication and cooperation between scientists and managers, thus reducing their effectiveness".³²

In the WCPO region, the same arguments could possibly be applied in the sense that the resolutions agreed to by the WCPFC did not go far enough to address the recommended reduction in effort suggested by the Scientific Committee.³³ However, the argument could be made that notwithstanding these criticisms, the effort made by the WCPFC at its second meeting represents a start, that it reflects a desire to at least have some limits in place where none previously existed. With respect to bigeye and yellowfin tuna, the two stocks which are under stress, the WCPFC decreed that the fishing effort in the Convention Area³⁴ shall not be increased beyond current levels.³⁵ The current fishing levels may include fishing carried out under existing regional and bilateral fisheries partnership agreements provided they are registered with the WCPFC. To ensure that capacity remains within existing effort levels, WCPFC members and cooperating non-members (CCMs) shall take measures to ensure that their fishing vessels only be transferred to other CCMs when such transfers do not result in the overfishing of the Convention Area.

With respect to the purse seine fishery, the WCPFC agreed that CCMs shall take necessary measures to ensure purse seine effort levels do not exceed either 2004 levels or the average of 2001–2004 levels in waters under their jurisdiction. For Parties to the Nauru Agreement (PNA) members,³⁶ the effort limits are to be applied as a Vessel Day Scheme (VDS), limiting effort to no

32 See UN Fish Stocks Review Conference, above n 28.

33 The Scientific Committee had recommended a 20 per cent reduction in effort across the fishery. See WCPFC, above n 22.

34 The Convention Area is defined in Article 3 of the Convention for the Conservation and Management of Highly Migratory Fish Stocks as comprising all waters of the Pacific Ocean bounded to the south and to the east by the following line:

From the south coast of Australia due south along the 141° meridian of east longitude to its intersection with the 55° parallel of south latitude; thence due east along the 55° parallel of south latitude to its intersection with the 150° meridian of east longitude; thence due south along the 150° meridian of east longitude to its intersection with the 60° parallel of south latitude; thence due east along the 60° parallel of south latitude to its intersection with the 130° meridian of west longitude; thence due north along the 130° meridian of west longitude to its intersection with the 4° parallel of south latitude; thence due west along the 4° parallel of south latitude to its intersection with the 150° meridian of west longitude; thence due north along the 150° meridian of west longitude.

35 WCPFC, above n 19.

36 PNA members refer to the Parties to the Nauru Agreement, a subregional grouping within the Forum Fisheries Agency membership. This group is generally where most of the tuna stocks occur. The PNA countries are: Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu.

greater than 2004 levels.³⁷ This must be implemented by 1 December 2007. In terms of the VDS, it is that 33,856 purse seine effort days were expended in the waters of the PNA in 2004.³⁸ Consequently, it follows that the total allowable effort (TAE) by fishing days in 2004 was 33,856. VDS insulates vessels fishing under the Treaty on Fisheries between the Governments of Certain Pacific Island States (Treaty on Fisheries) and the Government of the United States and the Federated States of Micronesia Arrangement for Regional Fisheries Access (FSM Arrangement). The total amount of 5,590 days is deducted from the TAE. The remainder is then allocated to the PNA based on a formula agreed to by the parties in the VDS. Table 1 below gives an indication of the days each party to the Nauru Agreement is entitled to, based on 2004 effort levels.

Party	PAEs
Federated States of Micronesia	6,208
Kiribati	6,150
Marshall Islands	2,707
Nauru	1,442
Papua New Guinea	7,851
Palau	591
Solomon Islands	2,344
Tuvalu	972
Total PAEs	28,266
Treaty on Fisheries and FSM Arrangement	5,590
Total Allowable Effort	33, 856

Table 1: Allowable effort by party (PAE) under different TAEs

Source: Forum Fisheries Agency

37 The Vessel Day Scheme (VDS) will operate to limit the total number of fishing days in the VDS management area, with each party allocated an annual number of fishing days. That annual allocation will be determined by reference to biomass and historic catch. A "fishing day" is defined to be a calendar day spent by a purse seine vessel undertaking fishing activities in the Area. See Parties to the Palau Arrangement VDS Committee "Review of the Vessel Day Scheme Transfer of Days" (Paper prepared for the Third Meeting of the VDS Committee Meeting, VDS3/WP.4, Wellington, 21 May 2007).

38 Forum Fisheries Agency "Total Allowable Effort, Party Allowable Effort and the Vessel Day Scheme" (Paper prepared for the Parties to the Palau Arrangement VDS Committee meeting, Nadi, 12 May 2006) 1.

Forum Fisheries Agency (FFA) members who are not Party to the Nauru Agreement are to apply similar measures to limit purse seine effort in national waters; these must not exceed 2004 levels or the average of 2001–2004 levels.³⁹

The WCPFC also agreed to set catch limits for the longline fishery for bigeye tuna. The measure stipulates that bigeye tuna catch for the following three years for each CCM shall not exceed the annual average bigeye catch for the years 2001–2004 or 2004 (only for China and the US). CCMs that caught less than 2,000 tonnes in 2004 shall ensure their catch of bigeye in the next three years do not exceed 2,000 tonnes. With regard to the albacore tuna fishery, the WCPFC agreed CCMs shall not increase the number of fishing vessels actively fishing for southern albacore south of 20°S above 2005 levels or recent historical (2000–2004) levels. Currently, the only CCMs fishing south of 20°S are New Zealand, Taiwan, the US and Canada.⁴⁰

There are some broader aspects of the tuna measure that set strong precedents and directions to inform the future work of the WCPFC. These include:

Gaps in the measure. The measure does not apply limits to fishing by gear types, other than longline and purse seine. This leaves a substantial amount of fishing effort in Indonesia and the Philippines outside the limits. There is also no limit on purse seine effort in the high seas, and there is no significant measure in place to reduce bigeye and yellowfin tuna mortality from fish aggregating device (FAD) sets. Closing these gaps will be a priority for the next WCPFC meeting.

Conservation impact. It will take time to assess the effectiveness of the measure in meeting the goal of capping effort on bigeye and yellowfin tuna at current levels. In part this will depend on closing the gaps noted above. There is a risk that the effectiveness of the measure could be undermined by any further increases in fishing effort resulting from the exemption given to small

39 See WCPFC, above n 35, paras 8, 9 and 10:

8. CCMs shall take necessary measures to ensure that purse seine effort levels do not exceed either 2004 levels, or the average of 2001 to 2004 levels, in waters under their national jurisdiction, beginning in 2006.
9. The Commission shall implement compatible measures as required under Article 8 of the Convention, to ensure that purse seine effort levels do not exceed 2004 levels on the high seas in the Convention Area or the total fishing capacity will not increase in the Convention Area.
10. (i) For those FFA Member Countries who are Parties to the Nauru Agreement, the provisions of paragraph 8 will be implemented as a Vessel Day Scheme that will limit days fished to a level no greater than 2004 levels and will be fully implemented by 1 December 2007. Until that time, the current measures under the Palau Arrangement shall remain in force.
 - (ii) Other non-PNA member countries shall implement similar measures to limit purse seine effort in waters under their jurisdiction to no greater than 2004 levels, or to the average of 2001 to 2004 levels.

40 WCPFC, "Conservation and Management Measure for South Pacific Albacore 2005-02", (Pohnpei: Western and Central Pacific Fisheries Commission, 2005)

island developing states in the WCPFC Conservation and Management Measure 2005-01.⁴¹ In other words, the exemption granted in the measure to small island developing states should not be used as a loophole to avoid effort controls. Furthermore, the effectiveness of the measure could be undermined by vessels increasing their fishing effort around FADs. The implication of increased fishing around FADs is that while fishing effort may decrease, overall catches may actually increase leading to further overexploitation of the stocks. Overall, it is likely that the effort limits imposed will fall short of those necessary to remove the risk of overfishing of bigeye and yellowfin tuna stocks and that further tightening of the measures will be required for this to be achieved. The timing and extent of any tightening needed might depend on bigeye and yellowfin tuna recruitment patterns.

The island states and territories exemption. WCPFC Conservation and Management Measure 2005-01 states that nothing in this decision shall prejudice the legitimate rights and obligations of those small island state members and participating territories in the Convention Area seeking to develop their own domestic fisheries.⁴² In other words, small island states members of the WCPFC are exempted from the limits imposed under the measure. These are both an important opportunity and a potential loophole. In time, if limits tighten supplies and increase prices, the exemptions could provide a powerful impetus for beneficial domestic development. At the same time, if the exemptions become a loophole through which boatowners transfer substantial capacity by charters and reflagging, the wider effectiveness of the measure could be undermined. The focus of this discussion can be expected to shift to implementation of the transfer provision and the proposed charter arrangements scheme. In practice, there is less scope for gains and less risk of damage, with respect to longlining, if freezer fleet development is excluded. This is because domestic fleets will be effectively locked in to supplying a fresh sashimi market that is limited in volume in the medium term and subject to strong competition from farmed tuna.

Economic impact. Overall, the limits should increase the value of the fisheries concerned from enhancing catch rates for bigeye and improving prices for both longline and purse seine products. The application of zone-based limits through the VDS for purse seining should lead to substantial gains for FFA members in both foreign access and domestic purse seine fisheries, provided the limits do not keep skipjack tuna production substantially below optimal levels. In longlining there is likely to be little, if any, gain from foreign access longline vessels because of the application of catch limits by flag states. However, the domestic fleets could gain from maintaining bigeye tuna catch rates. There could be potential price gains since the effect of the exemption in WCPFC Conservation and Management Measure 2005-01⁴³ should be an important incentive both for

41 WCPFC, above n 35.

42 WCPFC, above n 35, para 6.

43 WCPFC, above n 35.

domestic fleets targeting bigeye and for those whom bigeye is a small but valuable component of the catch.

IV GAPS IN INTERNATIONAL FISHERIES: CLOSING THE LOOPHOLES

The WCPFC is underpinned by a robust, comprehensive and prescriptive Convention⁴⁴ which sets in place a framework that allows the Commission to take far reaching, innovative measures to address stock concerns. It is by far the most comprehensive fisheries agreement put in place, which incorporates the principles of transparency, accountability, the application of the ecosystems approaches to fisheries management and the precautionary approach. However, challenges still remain in ensuring the fish stocks are managed at sustainable levels. In his statement to the UNFSA Review Conference, Ambassador Aisi on behalf of the forum states stated:⁴⁵

Despite the establishment in our region of a contemporary RFMO based fully on the principles and provisions of the 1995 Agreement, we continue to face challenges to the proper conservation and management of our shared fish resource. A key challenge that could be immediately addressed is the need to secure full participation in the WCPFC of all States whose vessels participate in the fishery. Certain non-parties to the Agreement and non-members of the regional RFMO are continuing to benefit from the shared fish stocks of our region.

The WCPO is only one component of the global fisheries. Hence, the strenuous efforts being made within the WCPO region must be replicated in other oceanic regions throughout the world. Similarly, efforts that other RFMOs and oceanic regions are making to address fisheries problems should also be reflected in efforts undertaken in the WCPO. The management of the world's fish stocks is influenced by many factors which are beyond the control of fisheries departments. Control of international trade to eliminate illegal fishing is just one example of how greater concerted and cooperative efforts are required to properly regulate international fisheries.

The UNFSA Review Conference highlighted gaps in international fisheries. The International Union for the Conservation of Nature and Natural Resources (IUCN) reported that RFMOs do not cover all areas of the world's oceans particularly high seas stocks.⁴⁶ The IUCN suggested that the geographic gaps are significant and should be closed. It recommended establishing new RFMOs to cover areas in the Pacific and the Arctic; expanding the range of existing RFMOs; and upgrading

44 Forum Fisheries Agency "Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean" (Honiara, 2000).

45 See HE Robert G Aisi, Permanent Representative of Papua New Guinea to the United Nations "Joint Statement of the Countries of the Pacific Islands Forum to the Review Conference of the 1995 United Nations Fish Stocks Agreement, 22 to 26 May 2006" (23 May 2006).

46 IUCN "Information Paper on Regional Fisheries Management Organisations: Practical Steps for Improvement" (Paper prepared for the Review Conference on the UN Fish Stocks Agreement, Geneva, 22-26 May 2006) 3.

the legal mandates of FAO fisheries bodies that only provide advice.⁴⁷ With respect to conservation and management, the UNFSA Review Conference noted that the implementation by RFMOs of long-term sustainability measures, as well as states' efforts to address fisheries not currently regulated by an RFMO, are proceeding unevenly.⁴⁸

Further, it was observed that while states have begun to apply the precautionary approach to fisheries management, the practical implementation of the precautionary approach varies widely.⁴⁹ Thus, additional work is needed to advance the Agreement's implementation through RFMOs. Furthermore, overcapacity and over fishing continue to undermine efforts to achieve the long-term sustainability of many straddling fish stocks and highly migratory fish stocks. The Review Conference also remarked that for a number of fisheries in some areas of the oceans, the provisions of the UNFSA concerning compatibility have not been fully applied.⁵⁰ International cooperation remains the lynchpin to addressing conservation and management of fish stocks. However, the mechanisms through which states cooperate remain a problem. The UNFSA provides that all states with a real interest in the fisheries concerned should be enabled to become members of RFMOs, and that capacity building for developing states should be enhanced.⁵¹ The UNFSA Review Conference identified non-compliance by members and cooperating members and fishing by non-members as constraints to the effective implementation of conservation and management measures. While several RFMOs have made good progress in modernising their mandates to implement UNFSA provisions, a number of RFMOs are not fulfilling the range of functions outlined in the Agreement. The Review Conference recommended that performance reviews should be initiated in all RFMOs and that further work is needed to address participatory rights and allocation issues.⁵²

47 Ibid.

48 See Sainivalati Navoti "Report on the Review Conference on the UN Fish Stocks Agreement" (Paper prepared for the Pacific Islands Forum Law of the Sea Working Group, New York, June 2006).

49 UNGA "Report of the Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks" (5 July 2006) A/CONF.210/2006/15, 10.

50 Ibid, 32.

51 UNFSA, see Article 8(3) and Article 25.

52 UNGA, above n 49, 32.

In order to address these concerns, the UNFSA Review Conference recommended that states take, amongst other things, the following measures:⁵³

- Strengthen their commitment to adopt and fully implement conservation and management measures for SFS and HMS, including currently unregulated stocks, in accordance with best available scientific information and the Agreement's provisions on the precautionary approach;
- Improve cooperation between flag states on the high seas and coastal states to ensure achievement of compatibility of measures in accordance with UNFSA Article 7 (Compatibility of conservation and management measures);
- Establish new RFMOs for SFS, HMS and high seas discrete stocks, where needed, and agree on interim measures until such RFMOs are established;
- Enhance understanding of ecosystem approaches, commit to incorporating ecosystem considerations in fisheries management, and request the FAO to continue its work on the subject, as appropriate;
- Develop management tools, including closed areas, marine protected areas and marine reserves, to effectively conserve and manage SFS, HMS and high seas discrete stocks; and
- Protect habitats, marine biodiversity and vulnerable marine ecosystems, on a case-by-case basis, and in accordance with the best available scientific information, the precautionary approach and international law.

The effective participation of developing countries in the management and conservation of fisheries resources is also critical in the overall scheme of fisheries management. In a note verbale from the Permanent Mission of Canada to the United Nations, the Canadians noted that "the effective participation of developing states in the expanded fisheries governance system for straddling fish stocks and highly migratory fish stocks requires financial assistance, technical support and capacity building for developing state members of RFMOs."⁵⁴ In the WCPO, largely through the initiative of FFA members, the WCPFC has taken an innovative approach towards the

53 Ibid, 31-41.

54 UNGA "Note verbale dated 12 April 2006 from the Permanent Mission of Canada to the United Nations addressed to the Secretariat" (12 April 2006) A/Conf.210/2006/10, 18.

effective participation of developing countries. As reported by the Pacific Islands Forum grouping to the UNFSA Review Conference, Ambassador Aisi of Papua New Guinea said:⁵⁵

We have already established certain mechanisms to help in that regard. Again, the Western and Central Pacific region is at the forefront of innovation in creating mechanisms to enable developing State participation. Enshrined in the Western and Central Pacific Fisheries Convention is the requirement that developing member participation at Commission meetings be funded from the core budget of the Commission. In addition, the Special Requirements Fund established in accordance with the Convention constitutes voluntary contributions targeted at capacity building to support developing Members' participation in the work of the Commission.

The Financial Regulations of the WCPFC establishes a special requirements fund.⁵⁶ Resources are appropriated from the core budget of the special requirements fund to assist the small island state members and territories to effectively participate in the work of the WCPFC. The Rules of Procedure also stipulate that three-fourths of members must be present before any meetings of the WCPFC can commence.⁵⁷ This is to avoid the situation in other RFMOs where developing countries are disadvantaged because of resource constraints from participating in the meetings of the RFMOs.

Notwithstanding these gains, the countries in the WCPO region continue to face challenges with respect to the management and conservation of their fisheries resources. In a recent report on fisheries, Les Clark, a noted expert on fisheries in the WCPO region stated that:⁵⁸

Weaknesses in national governance are a key constraint to improving the use of the region's fish stocks. A 2003 industrial fisheries development study by the Forum Fisheries Agency (FFA) and AusAID noted that most countries had made substantial progress in reducing inappropriate government involvement and protective policies. But it listed a range of governance-related constraints including policy instability, high taxation, slow immigration processes, investment insecurity, administrative blockages, corruption and poor dialogue between government and industry.

55 Aisi, above n 45.

56 WCPFC "Financial Regulations of the Western and Central Pacific Fisheries Commission" (Pohnpei, 2004), reg 7.

57 WCPFC "Rules of Procedure of the Western and Central Pacific Fisheries Commission" (Pohnpei: 2004), rule 14.

58 Les Clark "Pacific 2020: Background Paper" (AusAID, Canberra, 2006) 8.

With respect to governance, recent cases of corruption within the fisheries departments of some countries reveals the extent to which poor governance can actually undermine effective fisheries management and conservation. As Les Clark said:⁵⁹

Recent cases of corruption and continuing expressions of concern from representatives of the fishing industry in the region about the integrity of decisions related to the granting of licences point to the need for greater transparency in fisheries decision-making. These concerns apply in particular to decisions on who should be allocated licences and who should be excluded, the conditions attached to licences, and decisions on fee levels, especially for foreign vessels. Change to enhance transparency should involve legal and administrative reforms to codify and formalise licensing processes. This should include broadening the responsibilities for licensing and setting fees and other conditions that involve agencies such as financial and legal authorities so that the responsibilities do not lie with a single minister or senior official. Licensing details should also be publicly disclosed so that decisions on whom licences are granted to, and the terms and conditions of licences, can be subject to public scrutiny.

There is also scope for greater transparency at the regional level. It has been suggested that at the regional level there is too much secrecy and that Pacific Island countries would be better served by sharing information, not concealing it from each other. As a result, all countries would be better informed in dealing with foreign fishing partners, and there would be more open dialogue about access arrangements as a basis for greater cooperative and collective action.⁶⁰

Illegal, unreported and unregulated (IUU) fishing remains one of the most significant threats to effective fisheries management and conservation. It is estimated that the value of IUU fish catches is between US\$4–9 billion a year. Of this about US\$1.25 billion worth of catch is taken from the high seas.⁶¹ While there has been no shortage of suggestions to address IUU fishing, international cooperation is critical to ensuring those measures are effective. In the WCPO, the recent meeting of the annual governing council of the Pacific Islands Forum Fisheries Agency agreed to task the development of a regional compliance strategy which should address, in a broad way, the problems posed by IUU fishing, and direct ways in which it may be tackled. The proposed report will.⁶²

- Within a regional context, identify and examine the critical issues relating to fisheries compliance, with a particular focus on detecting, prosecuting, deterring, and reducing illegal, unreported and unregulated (IUU) fishing;

59 Ibid, 16.

60 Ibid, 17.

61 High Seas Task Force "Closing the Net: Stopping Illegal Fishing on the High Seas: Final Report of the Ministerially-led Task Force on IUU Fishing on the High Seas" (Sadag, 2006) 3.

62 Forum Fisheries Agency "Regional Compliance Strategy" (Paper prepared for the 61st Meeting of the Forum Fisheries Committee, FFC61/Working Paper 11, Nadi, 15–19 May 2006).

- Take into account the emerging challenges from the introduction of more sophisticated fisheries management schemes, and obligations under the WCPFC;
- Undertake an audit of the current activities, resources, strengths and skills of the FFA Secretariat and FFA members;
- Provide high-level guidance on how these can most effectively be deployed to address the identified critical issues;
- Provide comment on the effectiveness of FFA members' respective compliance legislation and policy, prosecutions, and the current use of compliance resources and assets;
- Provide an assessment of the pros and cons of engaging with Pacific French and US territories as part of this strategy; and
- Provide options, including where appropriate a recommendation, on the most appropriate approach for the development of the Regional Fisheries Compliance Strategy.

International fisheries worldwide are facing a lot of problems. In the WCPO region, the challenges involved in ensuring sustainability of the region's major fish resources arise from four key starting points. The first is that the potential long term yields of the resources are limited, and those limits are being reached for some of the major target stocks, such as bigeye and yellowfin tuna. Secondly, the resources are shared, and cooperative arrangements are likely to be the best way to avoid overfishing of stocks. While generally most states share a common interest in conservation, they are not all motivated by the same national interest. The result is that often cooperative decisions represent the lowest common denominator, which may not necessarily translate to the most effective measures. Thirdly, the region's tuna fisheries are seen as having adverse impacts on a range of other species, therefore fishing needs to be managed to minimise those impacts. Fourthly, other indirect factors have the potential to impact on tuna fisheries, for example climate change, land-based activities, fish diseases, and trade politics. Closing the gaps will go a long way towards meeting the challenges facing the WCPO region.

IV CONCLUSION

In spite of considerable advances in the management and conservation of fish stocks throughout the world, fish stocks continue to be overexploited. There is a general perception that current efforts to manage fish stocks are inadequate and that more robust and innovative strategies are required. One proposal is that high seas fisheries could be managed by organisations that are jointly owned by nations. A necessary prerequisite for this is to change the high seas freedom to fish⁶³ into a right to share in the wealth generated from the sustainable harvest of high seas fisheries. All nations would be allocated a share in each of the organisations established. Each organisation would have explicit

63 UNCLOS, above n 30, art 87.

and exclusive authority to manage the high seas fisheries within its portfolio.⁶⁴ This is known as the "Marco" approach. As explained by the proposers:⁶⁵

This proposal would not create an allocation of state harvesting rights. Instead the allocation would be of state shares in the proposed organisation. A core feature is that states could not exercise their right to benefit unless a governance arrangement was in place that was capable of ensuring that fisheries management resulted in the generation of wealth on a sustainable basis. This would remove the current ability of states to act for unilateral benefit and avoid meaningful accountability for the exercise of their rights. In addition, all nations would receive a return from sustainable management of high seas fisheries, rather than benefits only accruing to nations with the capacity to invest in fishing fleets.

The management organisation would have a corporate ownership structure. Its shares would be held by nations on behalf of their citizens. For the purpose of this paper we call the proposed organisation 'Marco' and refer to it as a single entity, although we envisage that several organisations would be established.

The aim of Marco would be to maximise shareholder wealth by managing the high seas fisheries in the relevant ocean, subject to meeting externally set environmental standards. The governance structure proposed is based on the specification—and separation—of the roles and responsibilities of shareholders, directors, managers, harvesters, environmental standard setters, and auditors.

The importance of the tuna stocks in the WCPO to the world cannot be underestimated. One of the practical issues that confronts its management in the WCPO are the different countries that are involved in the fishery. On the one hand, are the small island developing state members of the FFA. By the most part, these countries are small and generally underdeveloped. On the other hand, the distant water fishing nations of the US, China, Japan, and the members of the European Union represent the largest and most powerful countries in the world. Yet, most tuna is found in the waters of the members of the FFA. Its management therefore presents enormous challenges and problems for FFA members. This article has argued that there are significant challenges facing the management of the WCPO's lucrative tuna resources. It has shown that while the tuna resources in the WCPO are generally healthy, there are concerns for yellowfin and bigeye which are nearing a state of being overexploited. The WCPFC has adopted a number of conservation and management measures at its second and third regular annual sessions. This article has shown the gaps in those measures and suggested ways in which those gaps could perhaps be addressed. Innovative approaches are required to address problems in international fisheries. This might require a radical departure from the traditional state-based international legal system. Further, will require a

64 See Stan Crothers and Lindie Nelson "High Seas Fisheries Governance: A Framework for the Future?" (Paper prepared for the Sharing the Fish Conference 2006, Perth, 27 February–1 March 2006) 3.

65 Ibid, 3-4.

willingness to take innovative and far reaching proposals to change the current problems facing international fisheries.

In spite of their differences, the countries in the WCPO who are members of the WCPFC have demonstrated a willingness to cooperate. In its short history, the WCPFC has made considerable progress in terms of advancing issues with respect to a vessel monitoring system, a regional observer programme and high seas boarding. No other international tuna organisation has a vessel monitoring scheme and high seas boarding and inspection procedures. The prospects for the sustainable management of the tuna resources in the WCPO therefore look bright.

